

Door Station - Exterior Setup Guide



Supported Models

- **C4-DSC-EN-BL** Door Station - Exterior
AC, DC, POE & WiFi - Satin Black
- **C4-DSC-EN-SN** Door Station - Exterior
AC, DC, POE & WiFi - Satin Nickel
- **C4-DSC-EN-VB** Door Station - Exterior
AC, DC, POE & WiFi - Venetian Bronze

Box Contents

Carefully unpack the Control4® Door Station from the box and ensure that the following items are included in the box. Contact your Control4 Dealer immediately if any parts are missing or if any components are damaged.

- Control4 Door Station - Exterior faceplate (model C4-DSC-EN-xx)
- Two (2) mounting screws
- Security screw tool
- Warranty Card

Accessories

- Door Station Metal Back Box (C4-DSBB-M, sold separately)
- Antenna Kit—WiFi/ZigBee 2.4 GHz, 26cm (C4-AK-26cm, sold separately)
- Antenna Kit—WiFi/ZigBee 2.4 GHz, 3m (C4-AK-3M, sold separately)

Specifications

Dimensions (H x W x D)	7.19" (183 mm) x 5.25" (133 mm) x 2.5" (63.5 mm)
Weight	1.1 lbs. (.49 kg)
Shipping Weight	1.6 lbs. (.725 kg)
Network	10/100 BaseT Ethernet (preferred) or WiFi (802.11 b/g/n)
Voltages	AC - 100V - 240V DC - 12 - 24V, 15W
Contacts (2 sets)	DC: 48V maximum operation (low voltage)
Relays (1)	AC: 36V, 2A DC: 24V maximum operation (low voltage)

Grounding Requirements

The following table indicates which power options require an earth ground.

Power Type	Earth Ground?
AC	Yes, required for safety.
Power over Ethernet (PoE)	No. Do not connect.
DC	Recommended; not required.

Front Panel Description

Figure 1. Front Faceplate

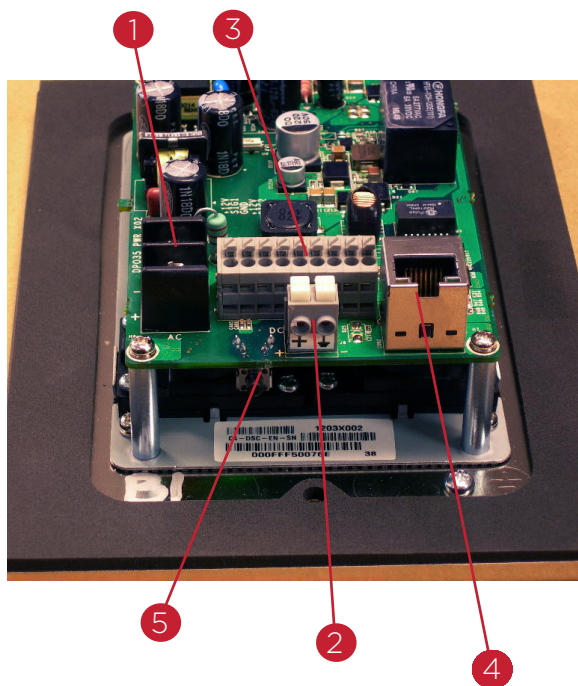


- 1 Camera.** 640 x 480 wide angle. Used for Video Intercom.
- 2 Call button.** Used to call the person inside the structure.
- 3 Speaker.** Used for Audio and Video Intercom.
- 4 Screw holes (2).** Used to screw the faceplate into the exterior wall.
- 5 Microphones (2).** Used for Audio and Video Intercom.

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Inside Panel Description

Figure 2. Door Station, Inside Panel



- 1** AC connection. Used to connect the wires for AC power.
- 2** DC connection. Used to connect the wires for DC power.
- 3** Contacts/Relays. Used to connect the wires for Control4 and third-party devices.



NOTE: Use the contacts and relays for non-secure devices only. For example, don't attach security gate wires to this terminal block.

- 4** Ethernet connection. Supports PoE.
- 5** Reset Button. Used to reset or factory restore the Door Station.

Pre-Installation

- 1** Find the best exterior location for the Door Station. See "Mounting Tips" below.
- 2** Install the Door Station Back Box. See the *Door Station Back Box Installation Guide* for details.
- 3** Determine which network and power options to use (see "Network Options" and "Power Options").
- 4** (WiFi only). Before the Door Station is fully installed, Control4 recommends to test the WiFi signal strength in Composer Pro's System Manager; a strong, robust signal is required. See the *Composer Pro User Guide* for details.

This device uses an Ethernet or WiFi network connection and can be powered using Power over Ethernet (PoE), AC, or DC. A wired network connection is recommended for the best Video Intercom experience. If it is not possible to use Ethernet, then please follow these guidelines for wireless.



NOTES: (1) Video Intercom usage. Although this device supports b/g/n, 802.11 b is not recommended or supported for Video Intercom. (2) Wireless-N is recommended for Video Intercom. See "Wireless Network Limitations" below.

Wireless Network Limitations

Many WiFi Access Points handle Multicasts (WiFi simultaneously sent to multiple devices, for example, when the Door Station broadcasts video to all stations) by slowing down transmission speed to the 1 Mb basic rate. This can cause overall WiFi congestion in the WiFi network during the broadcast. Video Intercom response times and images may degrade at each device.

If a home requires a large number of WiFi Video Intercom devices, ensure that you have a robust WiFi network (possibly consisting of multiple access points).

Mounting Tips

Follow these tips for the best results.

- 1** Install the Door Station in a place where it will be protected from water (e.g., rain, sprinklers, etc.).
- 2** Do not expose the Door Station to direct sunlight. If the sun hits the Door Station, Control4 recommends to purchase the Satin Nickel model (C4-DCS-EN-SN) to reduce fading and degradation of the Door Station.
- 3** Find the best exterior location for the Door Station. See the *Door Station Back Box Installation Guide* for back box installation.
 - a** Mount the Door Station where the video camera is aimed at an average person's height so the person inside the building gets a good view of the person calling in.
 - b** Mount the Door Station so that the caller can comfortably speak into the microphone (about two (2) feet away or 60 cm).
- 4** Control4 does not recommend using wireless (WiFi) networking for an exterior installation. If you must use WiFi, however, follow these guidelines:
 - The wireless access protocol (WAP) broadcast to the exterior location must be strong.
 - Use Composer Pro's System Manager to test the wireless signal after you've installed the Door Station, and then verify that the signal works correctly. See the *Composer Pro User Guide* for details.

Network Options

The Door Station can be connected using one of these network types:

- **Standard Ethernet.** For best results, this is the preferred option. Connect the Door Station to the RJ-45 LAN port on using the RJ-45 Ethernet cable.
- **WiFi.** The WiFi antenna will communicate with the LAN's WAP. If the LAN has a WAP set up, no additional wiring is needed except for power. See "WiFi Antennas" for details.



IMPORTANT! (1) Control4 recommends to use an Ethernet connection rather than WiFi for the best communication with the Control4 system. (2) WiFi requires an antenna (sold separately).

Please read the next sections, "Power Options" > "Network and Power Installations" to choose an installation option that works best with the system *before* installing the Door Station.

Power Options



CAUTION! Do not attempt to use PoE, AC, and DC power at the same time. Choose only one power option.

ATTENTION! Ne pas tenter d'utiliser PoE, AC et DC en même temps. Choisir une seule option d'alimentation.

The Door Station can be powered using one of these three (3) options:

- **Power over Ethernet (PoE).** The Ethernet network connection for the Door Station is provided through the PoE Injector. No additional wiring is needed.
- **AC or DC.** Used to power the Door Station when using an Ethernet (not PoE) or WiFi network connection.



NOTE: Ethernet cable. Install the ferrite clamp on the Ethernet cable inside the back box.

Backlit Button Indicator

The Door Station button's light can be turned on or off depending on what is required for the installation.

The backlit button may make it easier to see the button when it is dark outside. Normally, the light on the button remains on or off depending on how it is configured in the system, however, it is also used to convey device status during certain times.

When the device is first powered on, the button will blink slowly until the device is ready to be used in the system. If the button continues to blink slowly for over 3 minutes, then the device may be experiencing a problem and should be factory restored. During a factory restore process the button will blink rapidly.

Power and Network Installations

Choose one of these six (6) options to connect the Door Station's wiring:

- Ethernet with PoE (preferred)
- Ethernet with AC
- Ethernet with DC
- WiFi with AC
- WiFi with DC
- WiFi with PoE

Option 1 (Preferred): Ethernet Connection with a PoE Injector or a Third-Party Injector or Switch

This option sets up Ethernet with PoE.

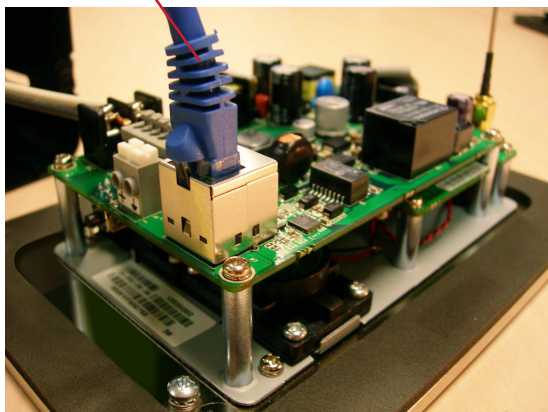
PoE injects electrical current into the Ethernet cable using a PoE Injector - model #AC-POE1-B, or a third-party PoE solution to provide the Door Station with power and a network connection.

To install the Door Station with a PoE and Ethernet connection using a PoE Injector:

- 1 Plug the Ethernet cable into the Door Station (see Figure 3).
- 2 See the section "Grounding Requirements" for details about earth grounding.

Figure 3. Ethernet with PoE Injector

Ethernet Connection



Option 2: Ethernet Connection with AC Power

This option sets up Ethernet and AC power.

To install the Door Station with Ethernet and AC power:

- 1 Plug the Ethernet cable into the Door Station (see Figure 4).
- 2 Connect a ground wire from the Door Station to one of the back box lugs (see Figure 12).
- 3 Connect a second earth-ground or house-ground wire from the second back box lug to the home. See "Grounding Requirements" for details about earth grounding.
- 4 Connect the neutral (N) (-) and hot (L) (+) wires to the AC power source for the Door Station according to the national and local electrical codes.



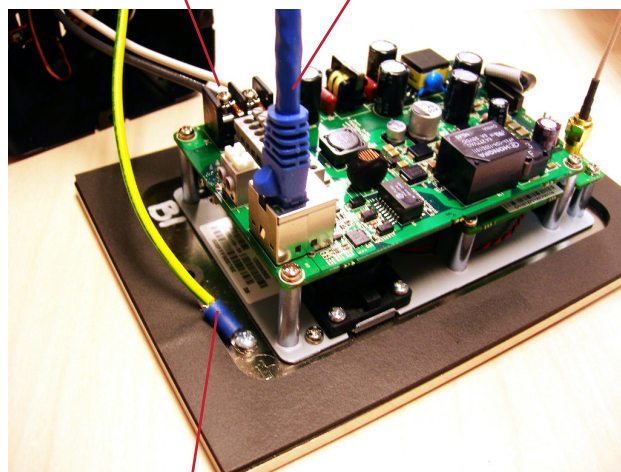
TIP: The hot or 'L' (+) wire's connector is closest to the bottom of the Door Station's plate.

- 5 Your installation may require alternative wires and the use of a terminal block. Strip the power wires to 1/4" on the end if necessary.

Figure 4. Ethernet with AC Power

AC Connections
(Hot and Load)

Ethernet Cable



Ground Wire

Option 3: Ethernet Connection with DC Power

This option sets up Ethernet and DC power.

To install the Door Station with Ethernet and DC power:

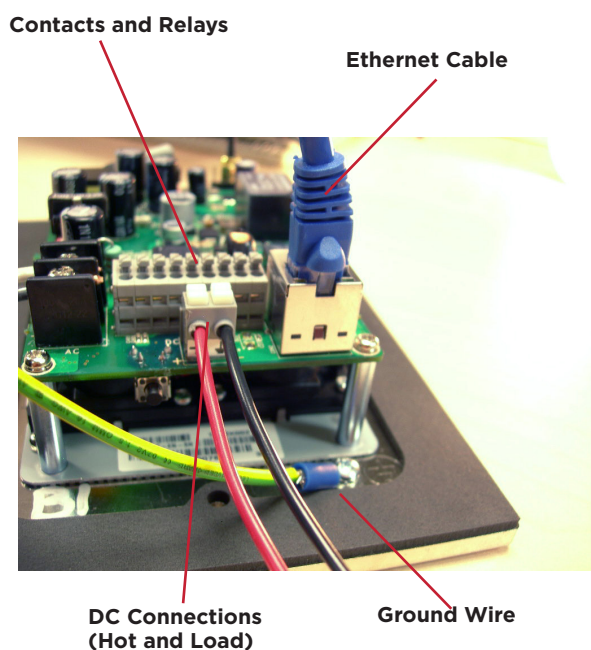
- 1 Plug the Ethernet cable into the Door Station (see Figure 5).
- 2 Connect a ground wire from the Door Station to one of the back box lugs (see Figure 12).
- 3 Connect a second earth-ground or house-ground wire from the second back box lug to the home. See “Grounding Requirements” for details about earth grounding.
- 4 Connect the negative (-) and positive (+) wires to the DC power source for the Door Station according to the national and local electrical codes.



TIP: The positive (+) wire's connector is located on the bottom left side of the Door Station's plate.

- 5 Your installation may require alternative wires and the use of a terminal block (see Figure 5). Strip the power wires to 1/4" on the end if necessary.

Figure 5. Ethernet with DC Power



Option 4: WiFi Connection with AC Power

This option sets up WiFi and AC power.

Ensure that you have WiFi in the home.



NOTE: WiFi requires an antenna (sold separately).

To install the Door Station with WiFi and AC power:

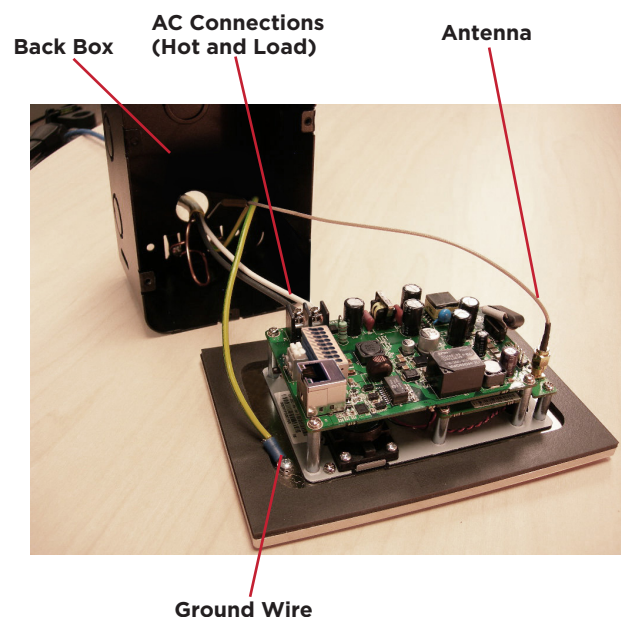
- 1 Connect a ground wire from the Door Station to one of the back box lugs (see Figure 6).
- 2 Connect a second earth-ground or house-ground wire from the second back box lug to the home. See “Grounding Requirements” for details about earth grounding.
- 3 Connect the neutral (N) (-) and hot (L) (+) wires to the AC power source for the Door Station according to the national and local electrical codes.



TIP: The hot or 'L' (+) wire's connector is closest to the bottom of the Door Station's plate.

- 4 Your installation may require alternative wires and the use of a terminal block. Strip the power wires to 1/4" on the end if necessary.
- 5 Attach the antenna (3m or 26cm) to the Door Station. See “WiFi Antenna Kit Installation” for details.
- 6 Run the antenna wire through the back box hole (see Figure 6). Ensure that the wire doesn't touch the back box.
- 7 Align the antenna vertically to the wall outside the back box (26cm antenna) or run the antenna through the wall (3m antenna). See “WiFi Antennas” for details.

Figure 6. WiFi with AC Power



Option 5: WiFi Connection with DC Power

This option sets up WiFi and DC power.

Ensure that you have WiFi in the home.



NOTE: WiFi requires an antenna (sold separately).

To install the Door Station with WiFi and DC power:

- 1** (Recommended) Connect a ground wire from the Door Station to one of the back box lugs (see Figure 12).
- 2** (Recommended) Connect a second earth-ground or house-ground wire from the second back box lug to the home. See “Grounding Requirements” for details about earth grounding.
- 3** Connect the negative (-) and positive (+) wires to the DC power source for the Door Station according to the national and local electrical codes.



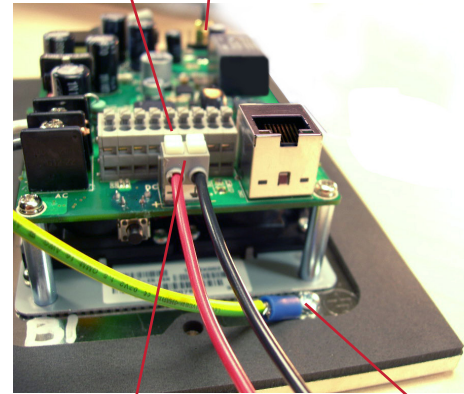
NOTE: The positive (+) wire's connector is located on the bottom left side of the Door Station's plate.

- 4** Your installation may require alternative wires and the use of a terminal block. Strip the power wires to 1/4" on the end if necessary.
- 5** Attach the antenna (3m or 26cm) to the Door Station. See “WiFi Antenna Kit Installation” for details.
- 6** Run the antenna wire through the back box hole (see Figure 12). Ensure that the wire doesn't touch the back box.
- 7** Align the antenna vertically to the wall outside the back box (26cm antenna) or run the antenna through the wall (3m antenna).

Figure 7. WiFi with DC Power

Contacts and Relays

Antenna



**DC Connections
(Hot and Load)**

Ground Wire

Option 6: WiFi Connection with PoE

This option sets up WiFi and PoE.

Ensure that you have WiFi in the home.

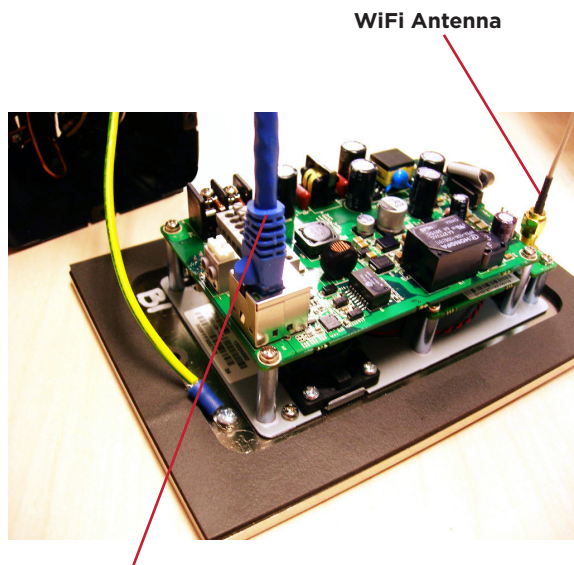


NOTE: WiFi requires an antenna (sold separately).

To install the Door Station with WiFi and PoE:

- 1** Plug the Ethernet cable into the Door Station (see Figure 8).
- 2** Attach the antenna (3m or 26cm) to the Door Station. See “WiFi Antenna Kit Installation” for details.
- 3** Run the antenna wire through the back box hole (see Figure 12). Ensure that the wire doesn't touch the back box.
- 4** Align the antenna vertically to the wall outside the back box (26cm antenna) or run the antenna through the wall (3m antenna).

Figure 8. WiFi with PoE



Ethernet and PoE Connection

Attach the Door Station

After the back box, all wiring, cables, and antennas are installed, carefully insert the Door Station into the back box and the wall:

- 1 Align the Door Station's top and bottom screw holes on the faceplate with the screw holes on the back box.
- 2 Use the screws provided to attach the Door Station to the back box.
- 3 To prevent future moisture and dust from getting inside the Door Station, make sure the rubber gasket on the inside panel of the Door Station completely covers and seals the Door Station's faceplate against the back box.

Configure the Door Station

To configure the Door Station in Composer Pro:

- 1 Open Composer Pro.
- 2 Double-click the **Door Station** driver to add it to a room in the project.
- 3 Identify the device to the project.

(WiFi only) For your convenience, the Door Station driver includes a meter to check WiFi signal strength. Use System Manager in Composer Pro to configure the WiFi parameters. See the *Composer Pro User Guide* for details.

Reset/Factory Restore the Door Station

To reset or factory restore the Door Station:

- 1 Unscrew the faceplate (top and bottom) and pull the Door Station out from the back box just enough to expose the Reset button (see Figure 2).
- 2 While powered press the **Reset** button on the bottom of the Door Station to reset or restore the Door Station.
 - **Quick press.** Press to reset the Door Station.
 - **Long press.** Press until the button on the faceplate begins to blink rapidly. At that time, the factory restore starts. This action restores the Door Station to its factory default settings.
- 3 When you are finished, insert the Door Station back into the back box and screw the faceplate back on.

WiFi Antennas (Optional)



NOTE: Control4 does not recommend to install the Door Station using WiFi. The best option is to use Ethernet.

Two (2) types of WiFi antenna kits are available for purchase: 26cm (dipole, best performance) or 3m (when you need to install the wire further away from the Door Station for a better WiFi signal).

- **Antenna Kit—WiFi/ZigBee 2.4GHz, 26cm** (C4-AK-26cm, sold separately). Recommended for walls that do not have thick concrete or metal. See Figure 9 and "WiFi Antenna Kit Installation" for details.
- **Antenna Kit—WiFi/ZigBee 2.4GHz, 3m** (C4-AK-3M, sold separately). Extend the range when walls have thick concrete or metal. See Figure 10 and "WiFi Antenna Kit Installation" for details.

Figure 9. 26cm Antenna Kit

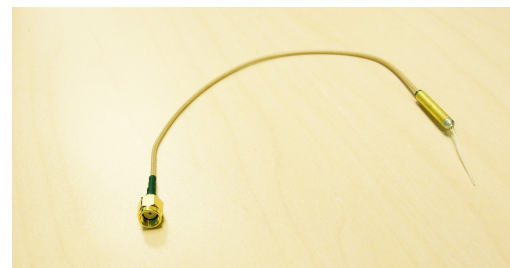


Figure 10. 3m Antenna Kit



WiFi Antenna Kit Installation (Optional)

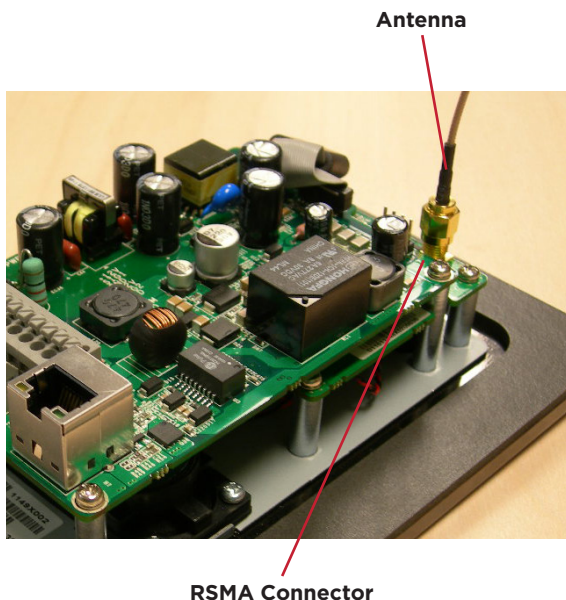
Before you install the antenna:

- 1 Make sure the Door Station is assembled.
- 2 Make sure the Door Station back box is installed in the wall. See the *Door Station Back Box Installation Guide* for details.

Antenna Kit—WiFi/ZigBee 2.4GHz, 26cm (C4-AK-26cm)

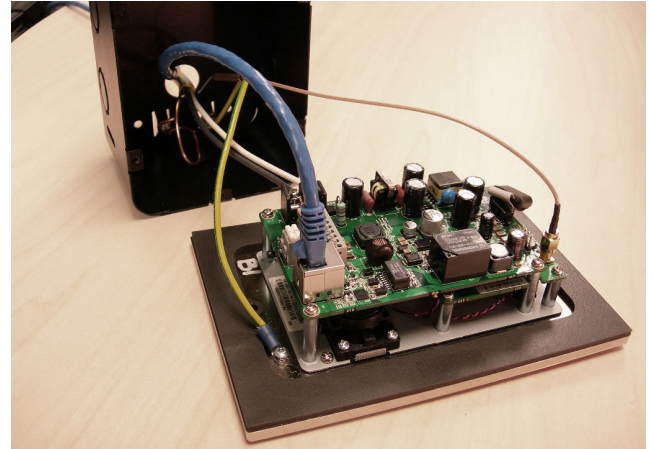
- 1 Remove the antenna from its packaging.
- 2 Attach the antenna's plug to the RSMA connector on the Door Station (see Figure 11).

Figure 11. Antenna to RSMA Connector



- 3 Thread the other end of the antenna through the back wall of the back box (see Figure 12).

Figure 12. Thread Antenna Through Back Box



- 4 Leave the other end of the antenna hanging outside the back box. Adjust it vertically for the best signal.
- 5 Carefully insert the Door Station into the back box (see "Attach the Door Station").

Antenna Kit— WiFi/ZigBee 2.4GHz, 3m (C4-AK-3M)

- 1 Attach the antenna's plug to the RSMA connector on the Door Station (see Figure 11).
- 2 Thread the other end of the antenna through the back wall of the back box and through the wall as needed (see Figure 12).
- 3 Carefully insert the Door Station into the back box (see "Attach the Door Station").

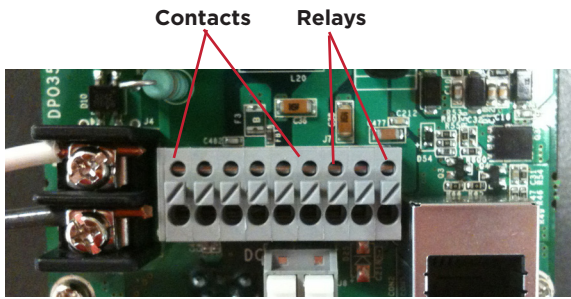
Contact and Relay Connections

You can connect devices to the contact ports or the relay ports (see Figure 13).



CAUTION! Control4 does not support using earth ground for Contacts as this could damage the Door Station.

Figure 13. Contacts and Relays



Connect to a Port

The Door Station provides nine (9) connections for contacts and relays: three (3) terminals for Contact 1, three (3) terminals for Contact 2, and three (3) terminals for the relay (see Figure 14).

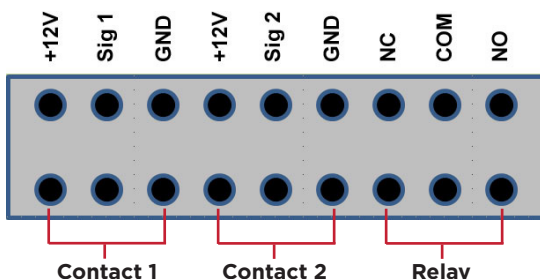
- **Contact** (2 sets). Terminal connector for one (1) dry contact closure, logic input connection, for gate control, etc. Provides power for small devices (12 V), signal input (SIG), return path (GND). The current, 100 mA, is shared across both sets of contacts.



NOTE: Do not use contacts that are grounded. The Door Station only supports non-grounded contacts.

- **Relay** (1). Terminal connector for one (1) normally closed or normally opened switchable connection for doorbell control (see Figure 15) or gate control. The set contains a connection for Normally Opened (NO), Normally Closed (NC), and Common (COM).

Figure 14. Contact/Relay Locations

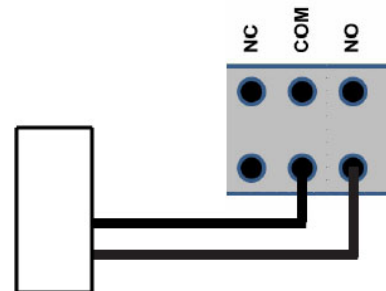


- 1 To attach the wires to the contacts or relay, select one of the large bottom-row holes (see Figure 13; notice that the top row holes are smaller than the bottom-row holes).

- 2 Using a small flat-blade screwdriver, insert the screwdriver into the slot on the small block that sits between the two rows of holes adjacent to the port and push down firmly. The block will depress.
- 3 Insert the wire. Ensure that the wire inserts all the way into the hole.
- 4 Release the screwdriver.

Example Wiring

Figure 15. Relay Port: Normally Open (e.g., Doorbell)



Troubleshooting

Boot Up

When the Door Station is booting up, if the button blinks and does not stop after (3) minutes or longer, there is a problem with the device and it will have to be restored. See “Reset/Restore the Door Station” later in this document.

Factory Restore

To restore the device to its default factory settings, see “Reset/Restore the Door Station” later in this document.

Security Best Practices

The Control4 Door Station – Exterior is the first smart Control4 device designed to be installed on the outside of a dwelling. The Door Station has connections for relays (to open doors, gates, etc.) and contacts. If installed without the proper security precautions, unauthorized access to the Door Station could provide access to Ethernet signals, Control4 signaling, and gate or door relays. Control4 advises Control4 Dealers to be aware of these risks and take all necessary precautions depending on each specific installation you will be doing.

It is each Dealer's sole responsibility to advise their customer at each installation of any security risks specific to such installation. Control4 makes no claims, representations or warranties regarding the security of this product and accepts no liability for any security risk attendant to a specific installation.

- 1** The Door Station - Exterior ships standard with security screws. Dealers are encouraged to use these screws, or even substitute alternate security screws per the Dealer's or customer's preference. Screw size is metric M3.5x.6-30L.
- 2** Security gates or automatic doors should not be connected to the relay in the Door Station if mounted in an unsecured area; such relays could be accessed in the event of a breach of the device. Secure relay-driven devices should be connected to a more secure relay controller mounted behind a secure wall.
- 3** Security devices, for example numeric keypads, should not be connected to the contact sensors in the Door Station if mounted in an unsecured area; such devices could be accessed in the event of a breach of the device. Security-sensitive devices should be connected to more secure contacts mounted behind a secure wall.
- 4** Although the best video performance will be enabled by Ethernet connectivity, unauthorized access to the Door Station could provide access to the dwelling's Ethernet network and corresponding personal data.

There are alternatives to mitigate this risk. The Dealer should consider the following options:

- Running Control4 on an isolated LAN from PCs on the network would limit exposure to personal data.
- Running MAC address filtering on the router or switch to force a hacker to spoof the Door Station's MAC address to gain access to the LAN.
- Configuring the Door Station as WiFi instead of Ethernet would allow the Dealer to use robust WiFi security protocols, for example, WPA.



NOTE: WiFi signals must be very strong and stable to support Video Intercom.

- Routing the Ethernet cable to the Door Station through a secure, managed switch to limit data access from the Door Station.

Dealers should take time to assure they are not creating an unforeseen security risk for the customer, and any such risks should be discussed with the customer prior to the installation.

Carefully consider with your customer any contacts or relays before connecting them to the Door Station, and what implications could arise if someone gained access to the rear of the Door Station.

Also, think about what could happen if someone gained access to the Ethernet cable, and take necessary precautions to protect private customer information unless your customer is willing to assume these risks. Making available the proper security protections to a customer for their residence is the responsibility of the Control4 Installer.

Warnings



WARNING! To avoid bodily harm, understand and follow these safety precautions before operating this Door Station:

- Using worn-out or damaged power cords may result in electric shock or fire.
- Always contact an authorized Control4 service provider for assistance if any repair or adjustment is required.

Avertissement! Pour éviter des dommages physiques, comprenez et suivez ces mesures de sécurité avant d'actionner station de porte Control4® sans fil:

- Utilisant usé ou endommagé les cordons de secteur peuvent avoir comme conséquence la décharge électrique ou le feu.
- Entrez en contact avec toujours un fournisseur des services Control4® autorisé pour l'aide si n'importe quelle réparation ou ajustement est exigée.



IMPORTANT! Improper use or installation can cause LOSS/DAMAGE OF PROPERTY.

Important! L'utilisation ou l'installation inexacte peut causer LOSS/DAMAGE DE PROPRIÉTÉ.



IMPORTANT! Using this product in a manner other than outlined in this document voids your warranty. Further, Control4 is NOT liable for any damage incurred with the misuse of this product. See "Warranty."

Important! Utilisant ce produit en quelque sorte autre que décrit dans ce document vide votre garantie. De plus, Control4 n'est pas responsable d'aucun dommage encouru avec l'abus de ce produit. Voyez que «Warranty.»



WARNING! Before you install the Door Station switch off the circuit breaker or remove the fuse from the fuse box.

AVERTISSEMENT! Pour l'endroit où vous installez station de porte, coupez le disjoncteur ou enlevez le fusible de la boîte de fusible.



IMPORTANT! Before you can complete these instructions below, you must have a Door Station back box installed according to the documentation provided in the back box kit. See "Accessories" for details.

Important! En coupant l'ouverture pour la boîte de mur, ne coupez pas l'ouverture trop grande. Soyez conservateur et agrandissez-avec précaution la comme nécessaire. Voyez que <<Accessories>>.

Regulatory/Safety Information

To review regulatory information for your particular Control4 products, see the information located on the Control4 website at: <http://www.control4.com/regulatory/>.

Warranty

Limited 2-year Warranty. Go to <http://www.control4.com/warranty> for details.